

Work Order ID 62768

Thursday, October 07, 2010 3:14:01 PM



Page 1

Item ID: D206-642-541

Accept



Setup Start



Revision ID:

Item Name: Replacement Skidtube

Stop



Start Date: 10/7/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 10/15/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:



Date: 10-10-07

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr	Revision Nbr
D3274	D
IIN-D206-642	Rev M

100 0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile & type labels per PPP D206-642-541

CHG003

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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QtyReject
QtyReject
NumberInsp.
Stamp

110



Skidtubes

0.00

Skidtubes

Memo

0.00

****VERIFY AND INSPECT THE MATERIAL PRIOR TO USE****

1- Bend FWD end of tube using bend prog D3274 FWD and foilo 10 as per dwg D3274, cut fwd end of tube with saw table setup D3274.

2- remove fwd indexing ridge as per dwg D3274. Prepare for welding

3- weld fwd cap as per dwg D3274 and QSI004

AR Aluminum Rod Batch: M111385/M115778

4- grind fwd cap weld on top surface only

BE 10/10/14

5- Cut AFT end of tube at 170.9" as per dwg D3274 and deburr end.

6-Drill Aft cap pilot hole using DT8025

7 -Cleco DT8025 in position and install pilot hole drill Jig DT8742A,B,C,D.
Drill 3/16" pilot holes as per Dwg D32748 -Remove inner indexing ridge on aft end of skidtube as per Dwg D3274 scribe
batch #

9 -Open aft end cap holes to Ø0.208" as per Dwg D3274. Deburr aft end.

DJ 10-10-13
BB 10/10/14

BB 10/10/15

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Date: _____

Tooling: _____

Date: _____

Run Start



QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

**Sequence ID/
Work Center ID****Operation
Description****Set Up/
Run Hours****Tool ID****Tool #****Plan
Code****Accept
Qty****Reject
Qty****Reject
Number****Insp.
Stamp**

120



HandFinish

Chemical Conversion Coat per QSI005 4.1

0.00

1

B10/09

Hand Finishing

Memo

0.00

130



QC

Quality Control

QC3- Inspect Part Finish

0.00

1

10/10/20

140



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

1

10/10/20

Memo

0.00

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Reference:

Approvals:

Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

150



Skidtubes

0.00

Skidtubes

Memo

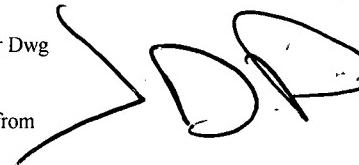
0.00

1-Open Ø0.313" and 0.375" crossbolt spacer holes using DT8743 as per Dwg
D32742-Deburr crossbolt spacer holes as per Dwg D3274 and blow out chips from
inside the tube

3-Bond web in place as per Dwg D8274 & QSI 015.

A/R Sikaflex-291 Sikaflex expire date: 01/2011 Start: 10/10/28 Time: 1:30 Finish: 10/11/28 Time: 8:40AM

(Adhere for 12 hours)



10-10-21

BE 10/10/28

160



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

S 10/10/29

0.00

RD

W/O:		WORK ORDER CHANGES					
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Process Plan:

Date:

Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

170



Skidtubes

Skidtubes

0.00

/

O

BE 10/10/29

Skidtubes

Memo

0.00

1-Bend AFT end of tube using bend prog. D3274 AFT as per dwg D3274. Install drop pins in crossbolt spacer holes to maintain web position.

2- DRILL PILOT HOLES FOR WEARPLATES USING D3274-1T2
OPEN HOLES TO .297". Deburr

3-DRILL TOE PIN HOLE .640" DIA AS PER DWG USING DT8935 FWD

END OF TUBE

DEBURR INSIDE OF HOLE AS NECESSARY (DO NOT ENLARGE HOLES)

REMOVE ANY FOREIGN OBJECTS INSIDE OF TUBES

4- Countersink crossbolt spacer holes as per Dwg D3274

5- prepare for welding

180



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

0.00

$h = 3.00"$
 $L = 5.00"$

S 10/11/10

XO

W/O:		WORK ORDER CHANGES					
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Customer:

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Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

210



QC10- Inspect visual per QSI004- ground welds

0.00

8/11/01

QC

Quality Control

220



Pressure Wash per QSI005 4.3

0.00

HandFinish

Hand Finishing

Memo

0.00

→ 10/11/02

XO

()

230



White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

Powdercoat

Powder Coating

Memo

0.00

START TIME: 11:00

OVEN TEMPERATURE: 300

FINISH TIME: 11:40

M15091,

1 BL 10-11-2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Accept



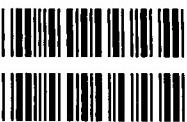
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Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInspec.
Stamp

240



QC

Quality Control

QC3- Inspect Part Finish

0.00

=> ML

10/11/02

1 6

250



HandFinish

HandFinishing

0.00

0.00

> ML 10/11/02

1 4

Hand Finishing

1-Install Nut Plate as per Dwg D3274. Apply LPS-3 to Nut Plate and rivets.
A/R□N/A□LPS-3□ ML 10/11/022-Install inserts as per Dwg D3274. Use a drop of Sikaflex inside insert holes a
A/R□□Sikaflex-291 □ ML 10/11/02
Sikaflex expire date: 10/01

260



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo
Inspect Nut Plate & Inserts

0.00

ML 10 11 02 01

W/O:		WORK ORDER CHANGES					
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Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

270



HandFinish

Hand Finishing

HAND FINISHING RESOURCE #1

0.00

=) M 10/11/03

1 0

Memo

0.00

1-Install wearpads & gaskets as per Dwg D3274.

2-Install ring as per Dwg D3274

A/R Sikaflex-291 10/11/11/03Sikaflex expire date: 11/10/

3-Inspect for foreign objects as per QSI 024

4-Spray inside of tube on both sides of web with LPS-3

A/R LPS-3 Batch: 11/10

5-Install Aft Cap and seal with Sikaflex. Clean excess adhesive.

A/R Sikaflex-291 10/11/11/03Sikaflex expire date: 11/10/

280



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

M 10 11 03 ①

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Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

290



Identify as per dwg & Stock Location:

0.00

Packaging

Packaging

Memo

0.00

300



QC21- Final Inspection - Work Order Release

0.00

QC

Quality Control

Memo

0.00

MF

10-11-4

W/O:		WORK ORDER CHANGES					
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Picklist Print

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Page 1

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Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/7/2010

Required Date: 10/15/2010

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev:B 05.09.23 □ Revised per D206-642 Rev. J □ KJ/JLM
IPP Rev:C 07-02-23 Added SS Wearplates & Gaskets JLM □
IPP Rev:D 07-12-06 replace NAS1515H3L to D3672-1 DD
IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC
IPP Rev:F 08-06-02 add comment DD verified by:EC
IPP Rev:G 08-10-09 revise details DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2600-1-190 		Manufactured	No			110	Each	73.0000	1	1			

Extrusion Round 3" 206

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>	
	LG	73		
	47575	25	(1)	DP 10-10-13
	59874	48		

D3285-1 	Manufactured	No			110	Each	141.0000	1					
-------------	--------------	----	--	--	-----	------	----------	---	--	--	--	--	--

Cap 	Manufactured	No			110	Each	141						
					52511		74						

D3282-041 	Manufactured	No			150	Each	2.0000	1					
					52647		67						

Float Web (206L/407) 	Manufactured	No			150	Each	2.0000	1					
					59886		2						

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>	
	LG	2		
	59886	2		

B 62942
62947

1 BE 10/10/14
BE 10/10/14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Start Date: 10/7/2010

Required Date: 10/15/2010

Start Qty: 1.00

Required Qty: 1.00

D2649



Manufactured No

190

Each

65.0000

1

1



Cross Bolt Spacer

Location

Loc Qty

Loc Code

LG

65

B62889

x12

BE 10/11/01

58545

2

60652

4

61496

59

D3275-1



Manufactured No

190

Each

216.0000

12

12



Crossbolt Spacer

Location

Loc Qty

Loc Code

LG

216

53453

8

61646

102

62399

106

CR3212-4-03



Purchased No

250

Each

1,888.000

2



Cherry Rivet

Location

Loc Qty

Loc Code

ST311

1888

111359

5

112314

2

114436

448

114450

71

114859

1362

12 BE 10/11/01

2 ML 10/11/02

D3415-041



Manufactured No

250

Each

52.0000

1



Nut Plate

Location

Loc Qty

Loc Code

ST056

52

33842

52

1 ML 10/11/02

y1

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Required Date: 10/15/2010

Start Qty: 1.00

Required Qty: 1.00

CCR264SS3-3

Purchased

No

250

Each

446.0000

2

2

46 10102102

Cherry Rivet



ALS4-1032-130

Purchased

No

250

Each

1,147.000

78

78

46 1011102

Insert



D3536-15

Manufactured

No

270

Each

21.0000

1

1

46 1011102

Gasket

**Location****Loc Qty****Loc Code**

FP

9

;

56055

1

X78

60875

8

V1

FP11

12

;

59238

1

;

62459

11

;

W/O:		WORK ORDER CHANGES					
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Start Qty: 1.00

Required Qty: 1.00

D3536-23



Manufactured No

270

Each

8.0000

1

1

HL 1016102

Gasket

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP011
61237

8

8

D3536-35



Manufactured No

270

Each

23.0000

1

*XI
1*

Gasket

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP012
58683
61692
62462

23

1

10

12

D3536-39



Manufactured No

270

Each

12.0000

1

HL 1011102

Gasket

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP12
58215
58574

12

1

11

D3535-15



Manufactured No

270

Each

12.0000

1

*YL
1
HL 1011102*

Wearshoe

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP18
61241
62241

12

6

6

*YL
1*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
•								

NOTE: Date & initial all entries

Picklist Print

Page 5

Thursday, October 07, 2010 3:14:06 PM

Work Order ID: 62768



Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/7/2010

Required Date: 10/15/2010

Start Qty: 1.00

Required Qty: 1.00

D3535-35

Manufactured No

270

Each

8.0000

1

1



Wearshoe

M1 10/11/02

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP018	8	
<u>60865</u>	8	

D3535-39

Manufactured No

270

Each

17.0000

1

V1



Wearshoe

M1 10/11/02

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP18	17	
58214	1	
<u>60233</u>	16	

D3535-23

Manufactured No

270

Each

19.0000

1

Y1



Wearshoe

M1 10/11/02

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP	7	
61830	7	
FP021	20	
<u>60231</u>	11	

D3537-3

Manufactured No

270

Each

6.0000

1

V1



Wearpad

M1 10/11/02

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP17	6	
<u>60866</u>	6	

Y1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Thursday, October 07, 2010 3:14:06 PM

Page 6

Work Order ID: 62768



Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/7/2010

Required Date: 10/15/2010

Start Qty: 1.00

Required Qty: 1.00

D3537-1



Manufactured No

270

Each

14.0000

9

9



41 1011102

Wearpad

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP	1	
55465	1	
FP017	6	
61986	6	
FP17	7	
57713	3	
60491	3	
61640	1	

AN960C10L



NAS1149C0332

R

Purchased

No

270

Each

29.0000

80

80

1115832



x80 41 1011102

washer

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST245	29	
107534	29	

AN960C416



NAS1149C0463

R

Purchased

No

270

Each

100.0000

1

1

washer

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST346	100	
100993	100	

X1

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Thursday, October 07, 2010 3:14:06 PM

Page 7

Work Order ID: 62768



Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/7/2010

Required Date: 10/15/2010

Start Qty: 1.00

Required Qty: 1.00

D3672-1



Phenolic Washer

Manufactured No

270

Each

855.0000

2

2



HL 1011102

Location	Loc Qty	Loc Code
ST077	855	
42329	150	
52505	705	

AN3C4A



BOLT

Purchased No

270

Each

1,650.000

80

80



HL 1011102

Location	Loc Qty	Loc Code
ST245	20	
110139	20	
ST303	42	
115438	42	
ST350	1588	
114108	14	
114416	12	
114523	2	
115300	560	
115589	1000	

AN4C5A



BOLT

Purchased No

270

Each

489.0000

1

Y80



HL 1011102

Location	Loc Qty	Loc Code
ST346	489	
110552	4	
112243	485	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Thursday, October 07, 2010 3:14:06 PM

Page 8

Work Order ID: 62768



Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/7/2010

Required Date: 10/15/2010

Start Qty: 1.00

Required Qty: 1.00

D2646



Manufactured No

270

Each

44.0000

1

1

M 10/11/07

Aft Cap

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP-4	39	
<u>57332</u>	39	<u>Y1</u>
fp5	1	
61752	1	
FP6	4	
52663	4	

D3413-1



Manufactured No

270

Each

31.0000

1

1

M 10/11/07

Ring

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST473	31	
<u>51586</u>	1	
53446	15	
<u>61322</u>	15	<u>Y1</u>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

DESIGN CP	DRAWN BY PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED #	APPROVED #	DRAWING NO. D3274	REV. D SHEET 1 OF 4
DATE 06.12.19		TITLE SKIDTUBE ASSEMBLY	SCALE NTS
A	04.03.15	NEW ISSUE	
B	04.08.09	MOVE SADDLE HOLE: 42.14 WAS 42.76	
C	05.03.16	ADD -043; NEW INSERTS	
D	06.12.19	NEW INSERTS, SS WEARSHOE + GASKET	

RELEASED07.02.12 **#****DEO ATTACHED**

Qty -041	Qty -043	Part Number	Description
X		D3274-041	SKIDTUBE ASSEMBLY
	X	D3274-043	SKIDTUBE ASSEMBLY
1	1	D2600-1-240	EXTRUSION
1	1	D2646	AFT CAP
12	12	D2649	CROSS BOLT SPACER
12	37	D3275-1	CROSS BOLT SPACER
1	1	D3282-041	FLOAT WEB
1	1	D3285-1	CAP
1	1	D3413-1	RING
1	1	D3415-041	NUT PLATE
1	1	D3535-15	WEARSHOE
1	1	D3535-23	WEARSHOE
1	1	D3535-35	WEARSHOE
1	1	D3535-39	WEARSHOE
1	1	D3536-15	GASKET
1	1	D3536-23	GASKET
1	1	D3536-35	GASKET
1	1	D3536-39	GASKET
9	9	D3537-1	WEARPAD
1	1	D3537-3	WEARPAD
78	78	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, AELS-1032-130)
80	80	AN3C4A	BOLT
1	1	AN4C5A	BOLT
1	1	AN960C416	WASHER
80	80	AN960C10L	WASHER
2	2	CCR264SS3-3	RIVET
2	2	CR3212-4-03	RIVET
2	2	NAS1515H3L	WASHER

GENERAL NOTES:

1. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
2. DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
3. ALL HOLES DRILLED ON CENTERLINES.
4. BOND D3282-041 FLOAT WEB INTO D3274-1/-3 OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015. ENSURE HOLES LINE-UP.
5. WELDING TO BE DONE PER DART QSI 004.
6. FINISH: - ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1
- POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
7. DRILL Ø0.297 HOLES FOR ALS7-1032-130 INSERTS USING DT3274-1T2 BEFORE FINISH. INSTALL ALS7-1032-130 INSERTS AFTER FINISH. SEAL WEARSHOE BOLTS WITH SIKAFLEX -241/-291.
8. SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY. CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

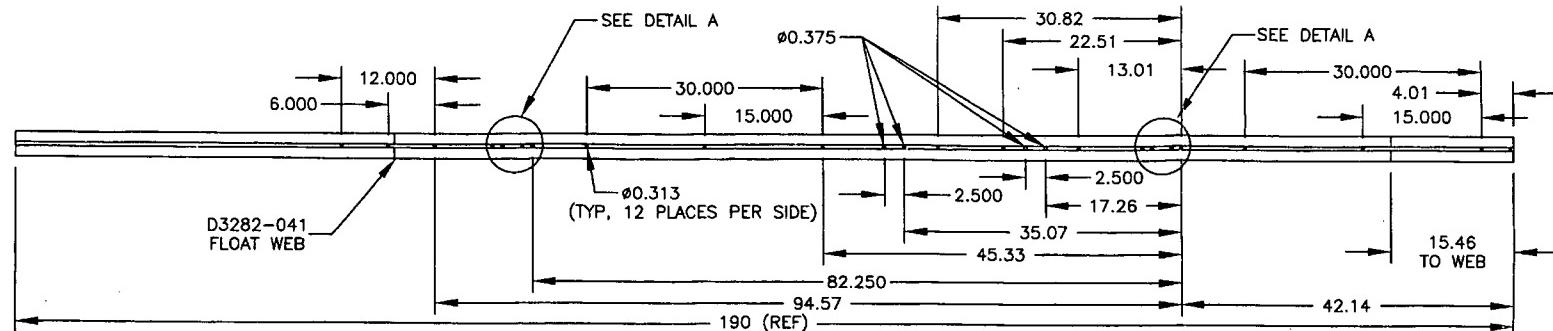
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

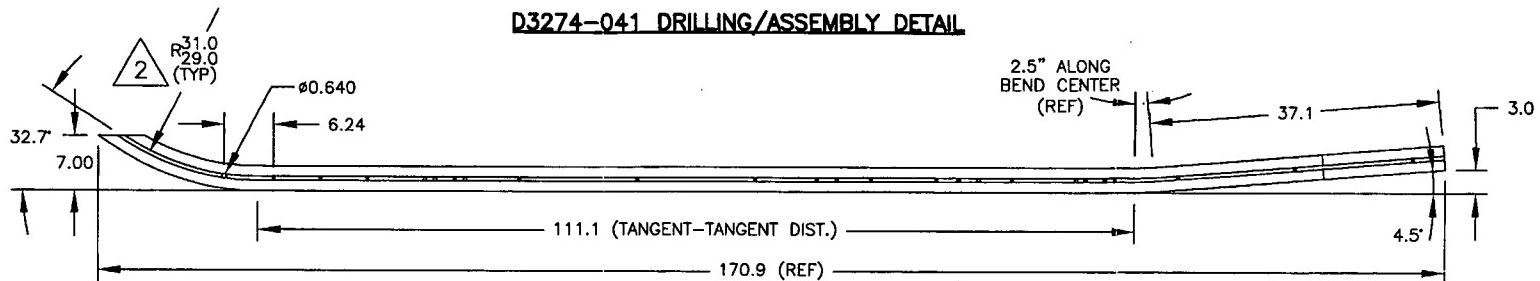
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

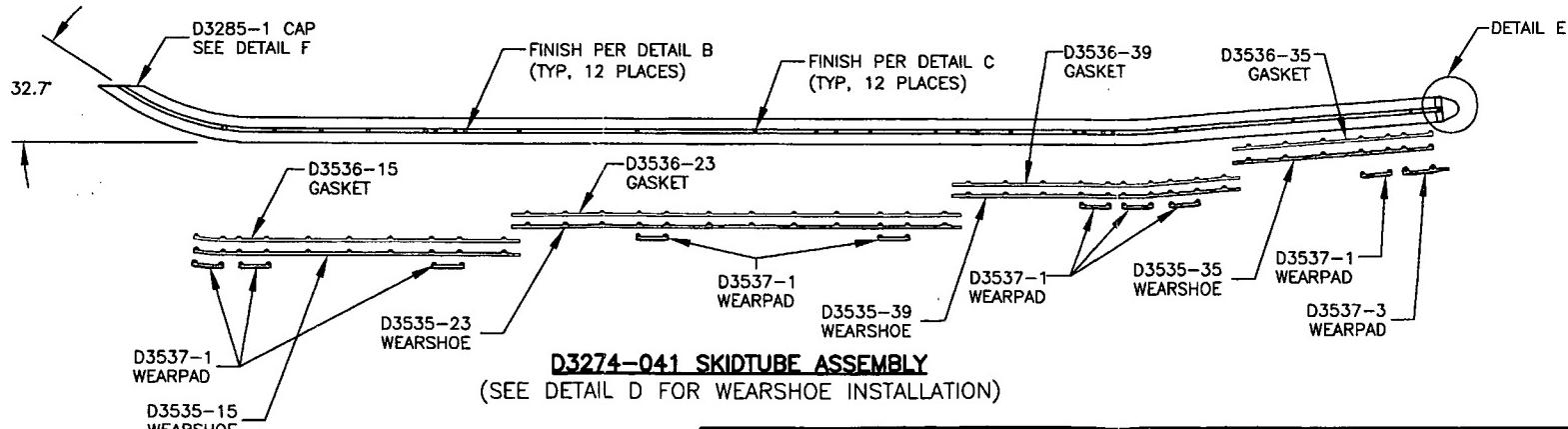
DET ATTACHED



D3274-041 DRILLING/ASSEMBLY DETAIL



D3274-041 BEND/DRILLING DETAIL



D3274-041 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED
07.02.12

DESIGN	DRAWN BY	DART	DART AEROSPACE USA, INC. PORT HANOVER, NC
CP	PH		
CHECKED	APPROVED		DRAWING NO. D3274
			REV. D SHEET 2 OF 4
DATE		TITLE	SCALE
06.12.19		SKIDTUBE ASSEMBLY	1:15

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

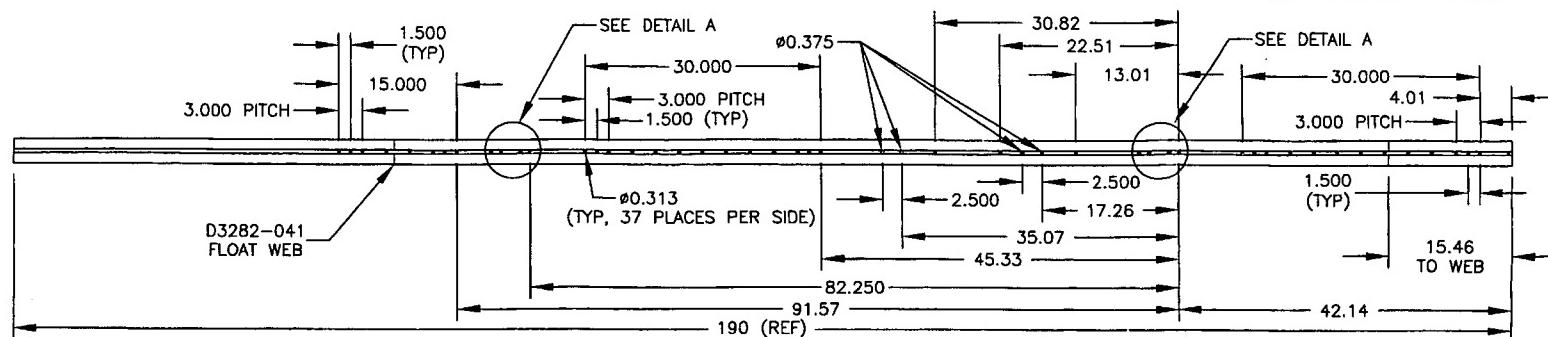
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

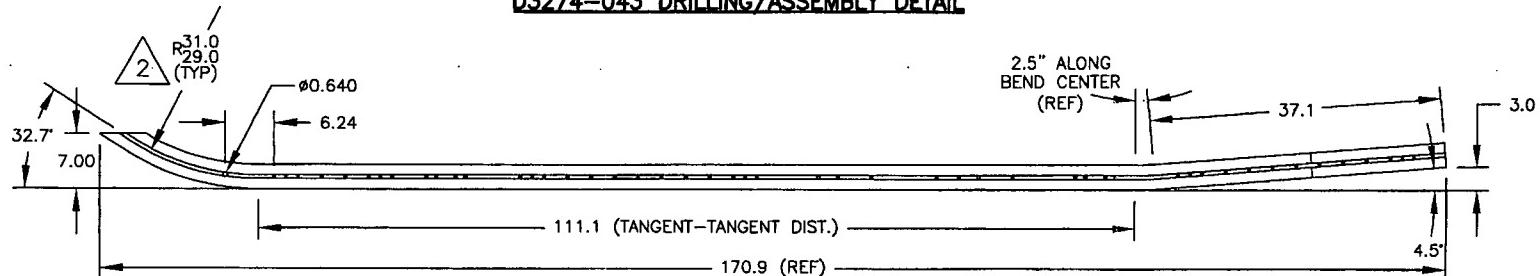
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

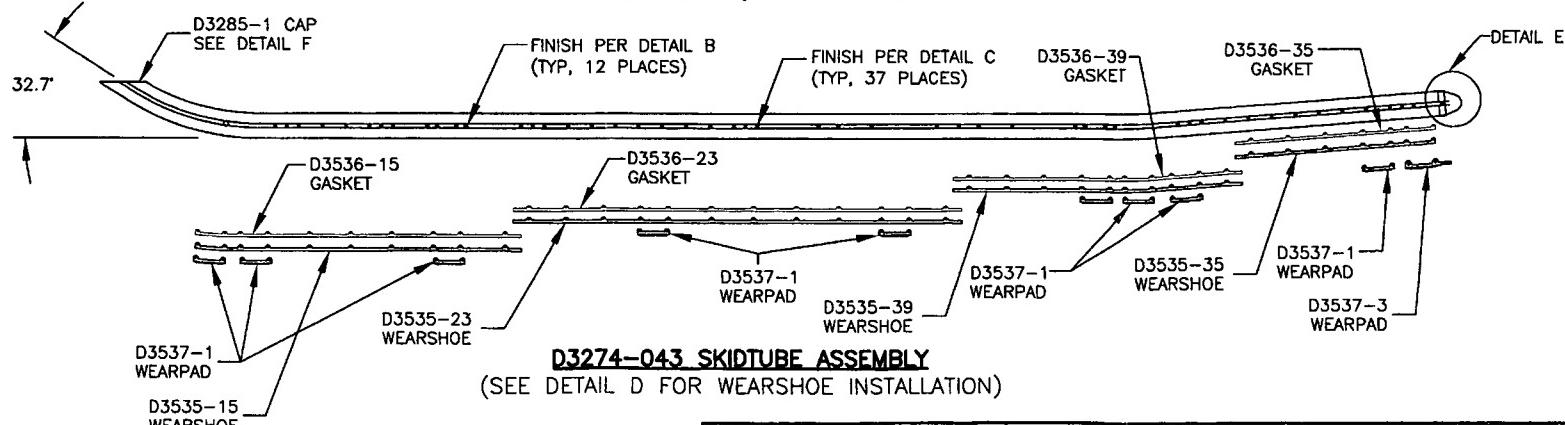
DEO ATTACHED



D3274-043 DRILLING/ASSEMBLY DETAIL



D3274-043 BEND/DRILLING DETAIL



D3274-043 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

67-02-12

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DESIGN	DRAWN BY	DART	DART AEROSPACE USA, INC. PORT HADLOCK, WA
CP	PH		REV. D
CHECKED	APPROVED		DRAWING NO.
			D3274
DATE		TITLE	SHEET 3 OF 4
06.12.19		SKIDTUBE ASSEMBLY	1:15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

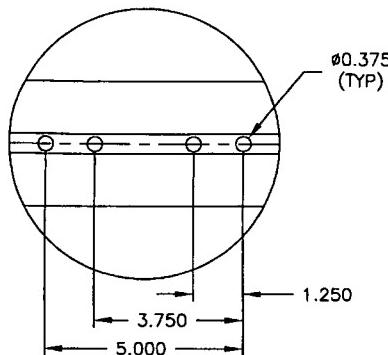
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

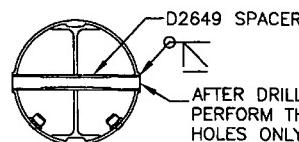
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DETAIL A: DRILL DETAIL



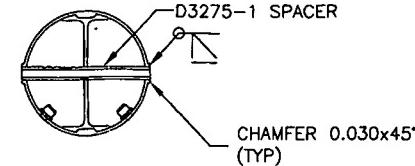
DETAIL B
FOR Ø0.375 HOLES ONLY



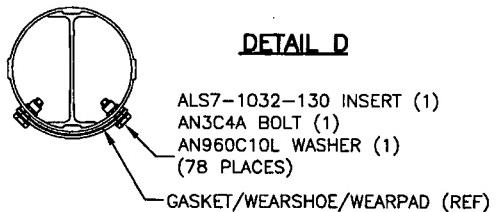
AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.375
HOLES ONLY:

1. CHAMFER HOLE 0.030x45°
2. INSERT D2649 SPACER
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE TO Ø0.313x0.75 DEEP

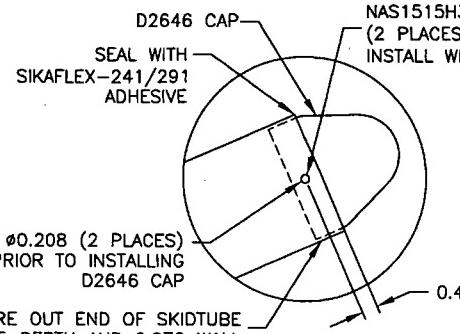
DETAIL C
FOR Ø0.313 HOLES ONLY



DETAIL D



DETAIL E AN3C4A BOLT (1)



AN4C5A BOLT (1)
AN960C416 WASHER (1)
INSTALL WITH SIKAFLEX-241/-291

CCR264SS3-3 RIVETS (2 PLACES)
INSTALL WITH LPS-3
CR3212-4-03 RIVETS (2 PLACES)
INSTALL WITH LPS-3

D3415-041 NUT PLATE,
LPS-3 ON FAYING SURFACE, LPS HARDCOAT ON EXTERIOR

D3413-1 RING

D3285-1 CAP (REF)

1.0
REMOVE RIDGE
ON INSIDE OF
SKIDTUBE LEAVE
0.070 MIN.

ORIENTATION
OF D3415-041

DET ATTACHED

RELEASED

07.02.12 *H*

DETAIL F NOTES

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D3285-1 (TRIM AS NECESSARY)
4. WELD D3285-1 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D3415-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH

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DESIGN

CP

DRAWN BY

PH

DART

DART AEROSPACE USA, INC.
PORT HUDDLE, MA

REV. D

SHEET 4 OF 4

CHECKED *H*

APPROVED *H*

DRAWING NO.

D3274

DATE

06.12.19

TITLE

SKIDTUBE ASSEMBLY

1:3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

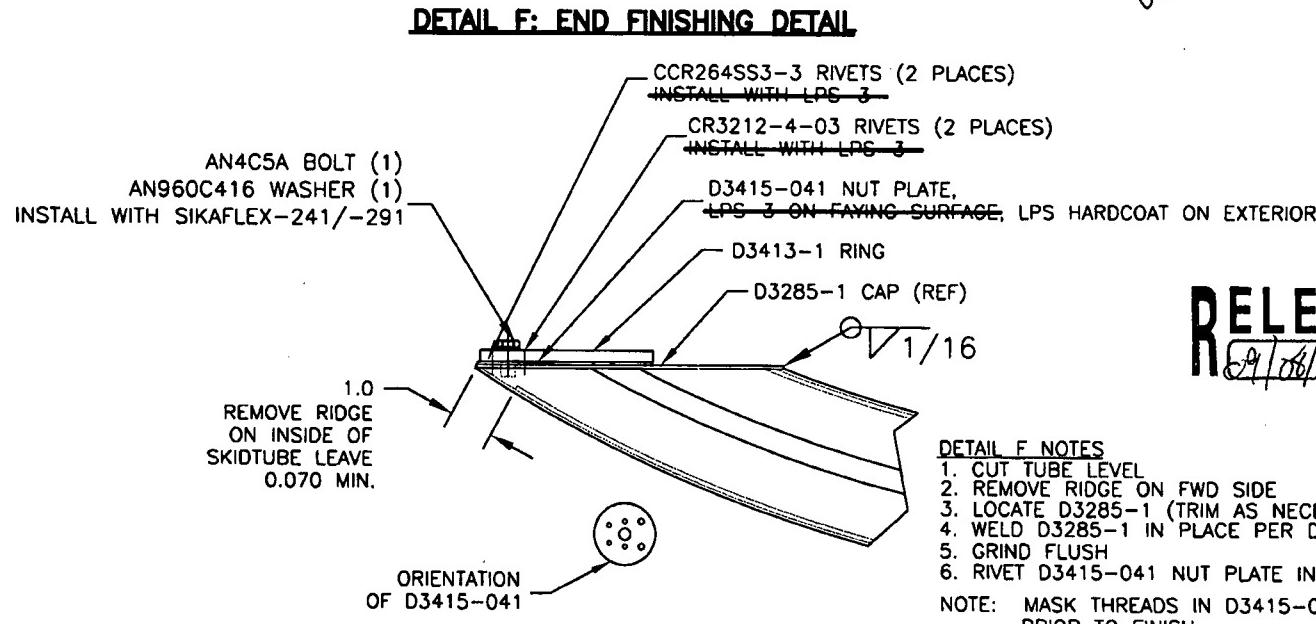
NOTE: Date & initial all entries

DRAWING NO. D3274	TITLE SKIDTUBE ASSEMBLY	REV. D	DART AEROSPACE USA, INC ENGINEERING ORDER	D.E.O. NO. D3274-D-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>CP</i>	CHECKED		MFG. APPR. <i>M</i>	APPROVED <i>MP</i>	DE APPR. <i>H</i>	
DATE 09.06.17	DATE 09.06.23		DATE 09/06/23	DATE 09/06/23	DATE 09.06.23	

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF SKIDTUBE.

AMEND NOTE 8: "~~SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES 'LPS 3' AFTER FINISH AND INSTALLATION OF INSERTS.~~
 COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES 'LPS PROCYON' AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER."

AMEND DETAIL F AS SHOWN:



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C-Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B	Sign & Date	Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng					

NOTE: Date & initial all entries

NO. 241

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 62280
Part number: DABC-642-541
Description: 206 skid
Welding Process: Tig Mig
Base material: Aluminum
Current: AC DC

TEST REQUIREMENTS AND RESULTS

Visual: pass fail
Penetration: pass fail

UNACCEPTABLE

Cracks: pass fail
Undercut: pass fail
Pin holes: pass fail
Overlap (cold lap) pass fail
Porosity (surface): pass fail
Coloration: pass fail

Qualifier Barclay Elliott Date of Test Coupon 10-09-30

Welder Barclay Elliott Date of Test Coupon 10-09-30

The above named individual is qualified in accordance with AWS D17.1.2001 to weld.